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R&D Research & Development

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INTERNATIONAL MAGAZINE OF RESEARCH AND DEVELOPMENT

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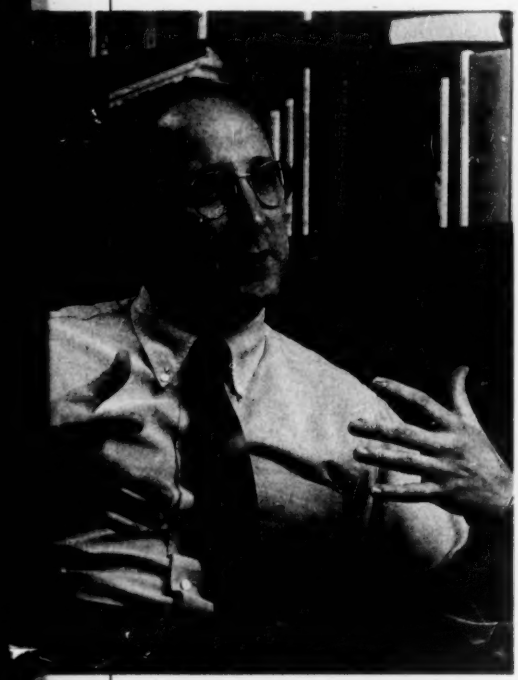

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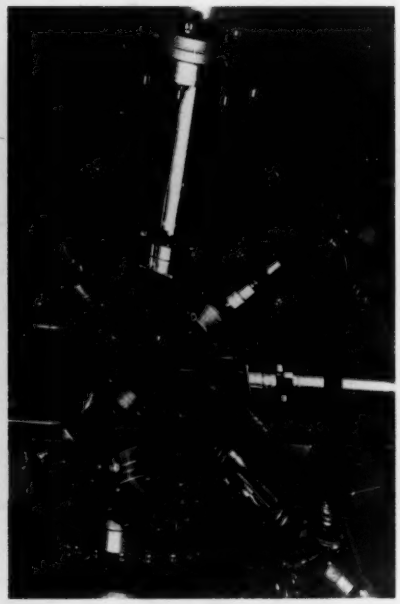
Steven Rosenberg, R&D Magazine's *Scientist of the Year, is working to develop a cure for cancer through adoptive immunotherapy. See story on page 58. Photograph by Neil MacDonald.*



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DON'T FORGET . . .

. . . to fill out the annual *R&D* Salary Survey (p. 99). Remember, the more responses we get, the better the data. And the better the data, the easier it will be for you to argue for your next raise. Thank you. —*The Editors*

R D

BUSINESS

Competitive Index reaffirms loss of U.S. R&D dominance

THE COUNCIL on Competitiveness, based in Washington, DC, recently issued its third annual Competitive Index.

To the surprise of no one, it reveals that the U.S. continues to lag behind the investment, productivity, exports, and standard of living of its major economic trading partners (Canada, France, West Germany, Italy, Japan, and the UK).

In some cases, such as productivity and trade, the U.S. has improved its individual performance but still remains behind the other countries.

In other cases, such as in investment, the U.S. is being outperformed dramatically. "In 1989, Japan outinvested the U.S. in absolute dollars for the first time, despite Japan's GDP being only 60% of that in the U.S.," says Kent Hughes, president of the Council on Competitiveness.

Some of the index's figures, such as productivity and investment, are based on somewhat dated foreign information, particularly Italy. However, no major economic disruptions in the world economy occurred between 1986 and 1989 that would change the competitiveness relationships, says Hughes.

Domestically, no major changes in Federal support, banking policies, or industry inclinations have occurred recently that would change the current trends, portending even further erosion of U.S. R&D relative to its competitors, adds Hughes.

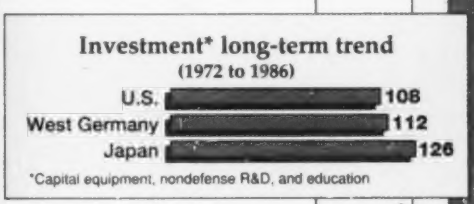
For a copy of the Competitive Index, 202/785-3990. □

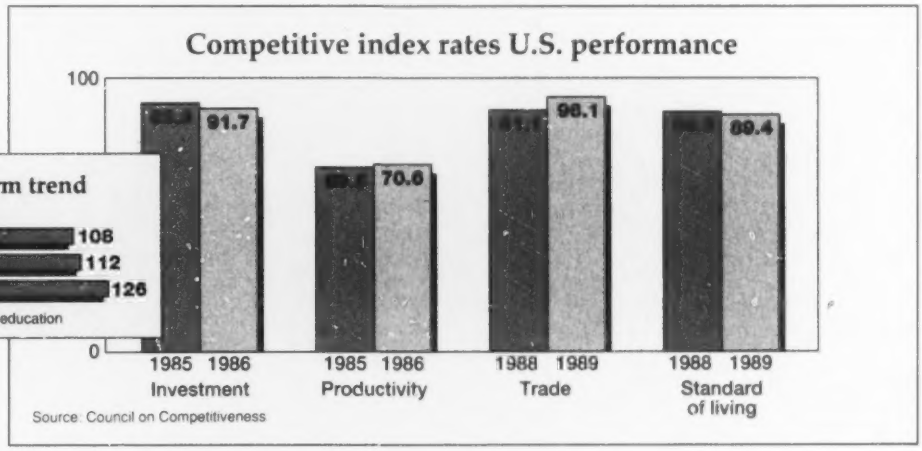
HPLC market forecast to bounce back after slump

THE recent slowdown in the high-performance liquid chromatography market is not permanent, and the market will return to an 8% growth rate during the next five years, according to David Milligan at Strategic Directions Intl., a Los Angeles-based market research firm.

Among the factors affecting the slowdown are fewer sales in biotech and governmental markets and competition from other technologies such as capillary electrophoresis.

Competitive Index values below 100 signify that other nations have outperformed the U.S. since 1972 (base year).





New study confirms LBOs have small effect on R&D spending

LEVERAGED BUYOUTS do not occur in R&D-intensive firms and cannot have much of an impact on [total] R&D spending in U.S. industry," says Bronwyn Hall, an assistant professor of economics at Univ. of California, Berkeley.

Hall bases this conclusion on her recently completed study of 2,500 firms involved in mergers, acquisitions, and leveraged restructurings from 1974 to 1987.

She found that only $767 million of R&D funds were involved in LBO-type transactions from 1977 to 1987, a small fraction of the $430 billion that the U.S. National Science Foundation estimates that industry spent on R&D during the same period. Even if this $767 million R&D funding had been cut drastically (nothing indicates that it was), this cutback would have had little effect on total spending, Hall says.

LBOs speed up the shrinkage of older, low-tech industries, says Hall. Typical low-tech industries that have been involved in LBOs include food, textile, auto parts and tires, and fabricated metals.

Often after an acquisition, an acquiring company will decrease its R&D funding because they need a steady cash flow to service their debt load. Hall estimates that these decreases average 0.6% and appear to be permanent in the sense that they do not become smaller even three years after the acquisition.

The general R&D spending de-

R&D

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